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A New Lionfish of the Genus *Dendrochirus* (Scorpaenidae: Pteroinae) from the Tuamotu Archipelago, South Pacific Ocean

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Dendrochirus tuamotuensis sp. nov. (Scorpaenidae: Pteroinae) is described on the basis of a single specimen collected off Makemo Atoll, Tuamotu Archipelago, South Pacific Ocean. The new species is uniquely characterized by having bilobed pectoral fins, those of its all congeners being rounded. The new species is similar to a Hawaiian endemic congener, *Dendrochirus barberi* (Steindachner, 1900), in having nine dorsal-fin soft rays, five anal-fin soft rays, relatively high counts (more than 18) of pectoral-fin rays, fewer than two tentacles on the snout tip, and no large, ocellated spot on the soft-rayed portion of the dorsal fin. However, the new species is clearly distinguished from *D. barberi* by having more pectoral-fin rays (19 in the former *vs* usually 18 in the latter), higher counts of spinous points on the suborbital ridge (14–16 *vs* 1–9) and pterotic spine (8 *vs* 1–5), a slightly shallower, narrower body [body depth and width 35.4% of SL and 18.6% of SL, respectively, *vs* 34.0–43.9 (mean 39.2)% of SL and 19.7–26.4 (22.7)% of SL], a slightly shorter, narrower head [head length and width, 37.6% of SL and 12.9% of SL, respectively, *vs* 40.3–45.7 (42.9)% of SL and 13.8–17.2 (15.4)% of SL], slightly smaller orbit diameter [12.9% of SL *vs* 13.1–16.0 (14.2)% of SL], and a slightly shorter postorbital length [15.3% of SL *vs* 16.4–20.6 (18.5)% of SL].

Key Words: *Dendrochirus tuamotuensis* sp. nov., lionfish, new species, French Polynesia, Makemo Atoll, pectoral fins.

Introduction

The Indo-Pacific lionfish genus *Dendrochirus* Swainson, 1839 is distinguished from the other genera of the scorpaenid subfamily Pteroinae by the following combination of characters: dorsal fin with 13 spines and anal fin with three spines; parietal spines not elevated and their bases strongly divergent posteriorly; mandible lacking ridges, spines, and overlying scales; and pectoral fin with branched rays (Eschmeyer and Randall 1975; Mandrytsa 2001; this study). Five species of *Dendrochirus* have been regarded as valid, *viz.*, *D. barberi* (Steindachner, 1900), *D. bellus* (Jordan and Hubbs, 1925), *D. biocellatus* (Fowler, 1938), *D. brachypterus* (Cuvier *in* Cuvier and Valenciennes, 1829), and *D. zebra* (Cuvier *in* Cuvier and Valenciennes, 1829) (Eschmeyer and Randall 1975; Poss 1999).

During a revisionary study of *Dendrochirus*, a single unidentified specimen was found in the collection of the Bishop Museum, Honolulu. Collected at a depth of 120 m off Makemo Atoll, Tuamotu Archipelago, French Polynesia, during radiobiological monitoring related to Mururoa Atoll in the same archipelago conducted by the Direction des Centres d'Expérimentation Nucléaire (Poupin 1996), it was subsequently identified as belonging to *Dendrochirus* on the basis of the above-mentioned diagnostic characters. This specimen is similar to a congener, *D. barbari*, in overall body appearance, but differs in pectoral-fin ray counts, several proportional measurements, the shape of the pectoral fin, and the head spine arrangement. No additional examples of this apparently new species were found elsewhere, although a large number of specimens were examined in museums worldwide. A formal description of the specimen is given below.

It is notable that Møller *et al.* (2004) described *Tuamotuichthys bispinosus* (Ophidiiformes: Bythitidae) as a new genus and species on the basis of a single specimen collected off Morane Atoll, Tuamotu Archipelago, during the same radiobiological monitoring cruise (J. Poupin, personal communication).

Materials and Methods

Measurements generally follow Motomura (2004a, b), but head width and maxillary depth follow Motomura *et al.* (2005b, 2006a) and Motomura *et al.* (2006b), respectively. As an additional feature, body depth at the anal-fin origin was measured at the level of the first anal-fin spine base.

Counts generally follow Motomura *et al.* (2005a–c) and Motomura and Johnson (2006), but pre-dorsal-fin scale counts follow Motomura *et al.* (2006b). The following counts are added here: oblique cheek scale rows—the number of rows of scales on the shortest line between the orbit